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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,914	09/22/2003	Takeshi Yamazaki	KOT-0082	9923
7590 06/01/2005 CANTOR COLBURN LLP 55 Griffin Road South Bloomfield, CT 06002			EXAMINER HSIEH, SHIH WEN	
			ART UNIT 2861	PAPER NUMBER
DATE MAILED: 06/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,914

Applicant(s)

YAMAZAKI, TAKESHI

Examiner

Shih-wen Hsieh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 6 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 5 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12-19-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 2 and 3 objected to because of the following informalities:

In regard to:

Claim 2:

Line 2, please change "the present time" into "present time" to correct a minor of lack of antecedent basis problem.

Line 3, please change "the number of times" into "number of times" to correct a minor of lack of antecedent basis problem.

Claim 3:

Line 2, please change "the time of replacement" into "time of replacement" to correct a minor of lack of antecedent basis problem.

Line 3 on page 36, please change "the number of times" into "number of times" to correct a minor of lack of antecedent basis problem.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko (US Pat. No. 6,056,387).

In regard to:

Claim 1:

Kaneko teaches:

An ink printer comprising:

(a) a jetting head (1, figs. 1 and 3) having a jetting plane (81, fig. 3) on which a jetting port for (82, fig. 3) jetting liquid to be jetted is provided, refer to col. 4, lines 41-43 and col. 5, lines 28-31;

(b) a cleaning wiper (7, figs. 1, 6, 7 and 12) having a blade for rubbing the jetting plane of the jetting head to remove jetted liquid sticking to the jetting plane, refer to col. 4, lines 52-54; and

(c) a controller for warning a user of deterioration of the cleaning wiper for the jetting plane, refer to step S7 in fig. 17 and col. 10, lines 29-62 (note: "indicate wiper exchange" in step S7 equivalents to a warning signal recited in this claim, and since fig.

17 is a control scheme and the flow routes in the scheme are inherently performed by a controller).

Claim 3:

Kaneko further teaches:

wherein the controller warns the user of time of replacement for the cleaning wiper by informing the user of an existing surface roughness or an amount of abrasion of the blade used in the cleaning wiper, based on the number of times of the maintenance operations, refer to col. 10, lines 51-58.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko.

The device of Kaneko DIFFERS from claim 6 in that it does not teach:

wherein a surface roughness (Ra) of the blade is 9 micron or less.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to designate a value to the roughness of the blade, such as 9 micron or less as proposed by the instant application, since it has been held

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that discovering an optimum value of a result effective variable involves only routine skill in the art, refer to MPEP 2144.05 II B.

Allowable Subject Matter

7. Claims 2, 4, 5 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

In regard to:

Claims 2 and 5:

The primary reason for the allowance of claims 2 and 5 is the inclusion of the limitations of wherein a backward dynamic contact angle of the present time is estimated based on the number of times of conducted maintenance operations by reference to data with respect to the number of times maintenance operations versus backward dynamic contact angles which have been obtained through measurement in advance, and the controller warns the user of the time of replacement for the cleaning wiper when the backward dynamic contact angle comes to a prescribed value or lower. It is this limitation found in each of the claims, as they are claimed in the combination

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that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 4 and 7:

The primary reason for the allowance of claims 4 and 7 is the inclusion of the limitations of a dynamic contact measuring device for measuring a backward angle of a contact portion at the cleaning wiper that comes in contact with the liquid jetting plane, wherein the controller warns in a prescribed output form when the controller judges that the backward dynamic contact angle of the contact portion measured by the measuring device is greater than the backward dynamic contact angle for judgment established in advance. It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHIH-WEN HSIEH
PRIMARY EXAMINER

Shih-wen Hsieh
Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH

SWH
May 27, 2005